



## Complete Summary

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### TITLE

Diabetes mellitus: percent of eligible spinal cord injury and disorders (SCI&D) patients with a diagnosis of diabetes mellitus having a retinal exam by an Eye Care Specialist within specified time periods.

### SOURCE(S)

Office of Quality Performance. FY 2009, Q2 technical manual for the VHA performance measurement system. Washington (DC): Veterans Health Administration; 2009 Jan 5. various p.

### Measure Domain

#### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

#### SECONDARY MEASURE DOMAIN

Does not apply to this measure

### Brief Abstract

#### DESCRIPTION

This measure is used to assess the percent of eligible spinal cord injury and disorders (SCI&D) patients with a diagnosis of diabetes mellitus having a retinal exam by an Eye Care Specialist, within specified time periods.

#### RATIONALE

High rates of diabetes mellitus have been documented in veterans with spinal cord injury and disorders (SCI&D). Risk factors include prolonged inactivity, paralysis resulting in difficulty performing exercise, obesity, and decreased muscle mass. The primary objective of this measure is to minimize diabetic complications in this high risk population.

Prevention of Diabetic Complications:

- Heart disease is the leading cause of diabetes-related deaths. Adults with diabetes have heart disease death and stroke risk rates about 2 to 4 times higher than adults without diabetes. Blood pressure control can reduce cardiovascular disease (heart disease and stroke) by approximately 33% to 50% and can reduce microvascular disease (eye, kidney, and nerve disease) by approximately 33%. In general, for every 10 mm Hg reduction in systolic blood pressure, the risk for any complication related to diabetes is reduced by 12%. Improved control of cholesterol and lipids (for example, high-density lipoprotein [HDL], low-density lipoprotein [LDL], and triglycerides) can reduce cardiovascular complications by 20% to 50%.
- Diabetes is the leading cause of new cases of blindness among adults age 20-74 and Diabetic retinopathy causes 12,000 to 24,000 new cases of blindness each year. Detection and treatment of diabetic eye disease with laser therapy can reduce the development of severe vision loss by an estimated 50% to 60%.
- More than 60% of nontraumatic lower-limb amputations in the United States occur among people with diabetes. Comprehensive foot care programs can reduce amputation rates by 45% to 85%.
- Glucose control - Research studies in the United States and abroad have found that improved glycemic control benefits people with either type I or type II diabetes. In general, for every 1% reduction in A1c, the relative risk of developing microvascular diabetic complications (eye, kidney and nerve disease) is reduced by 40%.

## **PRIMARY CLINICAL COMPONENT**

Diabetes mellitus; spinal cord injury and disorders (SCI&D); retinal exam

## **DENOMINATOR DESCRIPTION**

Eligible spinal cord injury and disorders (SCI&D) inpatients and outpatients with diabetes mellitus (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## **NUMERATOR DESCRIPTION**

Eligible spinal cord injury and disorders (SCI&D) patients with a diagnosis of diabetes mellitus with retinal exam by an Eye Care Specialist, within specified time periods (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

## **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Unspecified

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

External oversight/Veterans Health Administration  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care  
Hospitals  
Physician Group Practices/Clinics

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

Unspecified

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

See the "Rationale" field.

## **ASSOCIATION WITH VULNERABLE POPULATIONS**

Unspecified

## **BURDEN OF ILLNESS**

See the "Rationale" field.

## **UTILIZATION**

Unspecified

## **COSTS**

Unspecified

# **Institute of Medicine National Healthcare Quality Report Categories**

## **IOM CARE NEED**

Living with Illness

## **IOM DOMAIN**

Effectiveness

# **Data Collection for the Measure**

## **CASE FINDING**

Users of care only

## **DESCRIPTION OF CASE FINDING**

Eligible spinal cord injury and disorders (SCI&D) inpatients and outpatients with diabetes mellitus

## **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

## **DENOMINATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Eligible spinal cord injury and disorders (SCI&D) inpatients and outpatients with diabetes mellitus\*

*\*Eligible diabetes mellitus patients:* Meets cohort selection criteria and has a diagnosis of diabetes upon Computerized Patient Record System (CPRS) chart review.Â Refer to the original measure documentation for patient cohort description.

## **Exclusions**

- Patients with a diagnosis of gestational diabetes
- Hyperglycemia, not otherwise specified (NOS)
- Steroid induced hyperglycemia

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition  
Encounter  
Institutionalization

## **DENOMINATOR TIME WINDOW**

Time window brackets index event

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Eligible spinal cord injury and disorders (SCI&D) patients with a diagnosis of diabetes mellitus with retinal exam\* by an Eye Care Specialist\*\*, within specified time periods\*\*\*

*\*Eye exam:* Dilated pupil fundoscopic exam by an Eye Care Specialist, or dilated photo, or retinal digital image (dilated or undilated) read by an Eye Care Specialist and result available in the chart.

*\*\*Eye Care Specialist:* Ophthalmologist or Optometrist

*\*\*\*No retinopathy in prior exam;* exam is expected to be completed every 2 years. If retinopathy is found, eye exam is expected to be completed annually.

### **Exclusions**

Unspecified

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## **NUMERATOR TIME WINDOW**

Fixed time period

**DATA SOURCE**

Administrative data  
Medical record

**LEVEL OF DETERMINATION OF QUALITY**

Individual Case

**PRE-EXISTING INSTRUMENT USED**

Unspecified

**Computation of the Measure****SCORING**

Rate

**INTERPRETATION OF SCORE**

Better quality is associated with a higher score

**ALLOWANCE FOR PATIENT FACTORS**

Unspecified

**STANDARD OF COMPARISON**

Internal time comparison

**Evaluation of Measure Properties****EXTENT OF MEASURE TESTING**

Unspecified

**Identifying Information****ORIGINAL TITLE**

DM-retinal exam, timely by disease.

**MEASURE COLLECTION**

[Fiscal Year \(FY\) 2009: Veterans Health Administration \(VHA\) Performance Measurement System](#)

**MEASURE SET NAME**

[Performance Measures](#)

**MEASURE SUBSET NAME**

[Diabetes Mellitus \(SCI&D\)](#)

**DEVELOPER**

Veterans Health Administration

**FUNDING SOURCE(S)**

Unspecified

**COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE**

Unspecified

**FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

Unspecified

**ADAPTATION**

Measure was not adapted from another source.

**RELEASE DATE**

2009 Jan

**MEASURE STATUS**

This is the current release of the measure.

**SOURCE(S)**

Office of Quality Performance. FY 2009, Q2 technical manual for the VHA performance measurement system. Washington (DC): Veterans Health Administration; 2009 Jan 5. various p.

**MEASURE AVAILABILITY**

The individual measure, "DM-Retinal Exam, Timely by Disease," is published in "FY 2009, Q2 Technical Manual for the VHA Performance Measurement System."

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## **NQMC STATUS**

This NQMC summary was completed by ECRI Institute on January 8, 2010. The information was verified by the measure developer on March 22, 2010.

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